REMARKS

This Amendment responds to the Office Action dated December 14, 2006. By way of this Amendment, claims 1, 3, 9, 10, 12, 16-19, 29-32 and 42 have been amended. Specifically, claim 1 has been amended to include the subject matter of dependent claim 2 and dependent claim 8. Claim 17 has been amended to include the subject matter of dependent claim 20 and dependent claim 21. Claim 30 has been amended to include the subject matter of dependent claim 33 and dependent claim 34. Claim 3 was amended to correct a dependency. Claims 9, 10, 12, 16, 18, 19, 29, 31, 32 and 42 contain minor and non-limiting amendments. Claims 2, 8, 20-21 and 33-34 have been canceled. The cancellation of these claims should in no way be construed as acquiescence to any of the rejections stated. These claims were canceled solely to expedite the prosecution of the present application. Accordingly, claims 1, 3-7, 9-19, 22-31 and 35-42 are presently under consideration and should now be allowed.

35 U.S.C. 102(b) Rejections

In the present official action, claims 1-3, 6-14, 17-22, 25, 27, 30-35, 38 and 40 have been rejected under 35 U.S.C. 102(b) as anticipated by Brighton (US Patent Number 4,473,210). Claims 1-3, 6-14, 19-22, 25, 27, 30, 32-35, 38 and 40 have been rejected under 35 U.S.C. 102(b) as anticipated by Schnall et al. (US Patent Number 4,249,574). Claims 1-5, 7-14,17, 19-23, 25-27, 30, 32-36 and 38-40 have been rejected under 35 U.S.C. 102(b) as anticipated by Holter (DE 2514879). Claims 1, 17 and 30 have been rejected under 35 U.S.C. 102(b) as anticipated by Crane (DE 2641761). Claims 1, 17 and 30 have been rejected under 35 U.S.C. 102(b) as anticipated by White (GB 2057637).

Claims 1, 17 and 30 have been rejected under 35 U.S.C. 102(b) as anticipated by Parola (US Patent Number 3,722,854) and claims 1-3, 5-25, 27-38 and 40-42 have been rejected under 35 U.S.C. 102(b) as anticipated by Paetzel (US Patent Number 4,671,321). Applicants respectfully traverse these rejections.

As amended, independent claim 1 recites, in part, that "the first plurality of apertures of the first cylinder and the second plurality of apertures of the second cylinder are configured such that a radial fluid flow at the first inner surface is split into at least two axial fluid flows that are channeled into adjacent radial flow paths which, upon approaching the second inner surface, are channeled into axial flows and mixed with axial flow from an adjacent radial fluid flow." Independent claims 17 and 30 now include similar language. No new mater has been entered. Support for these amendments are found in the specification at least at paragraph [0039] et seq. and FIG. 3B.

None of the cited art describes that the first plurality of apertures of the first cylinder and the second plurality of apertures of the second cylinder are configured such that a radial fluid flow at the first inner surface is split into at least two axial fluid flows that are channeled into adjacent radial flow paths which, upon approaching the second inner surface, are channeled into axial flows and mixed with axial flow from an adjacent radial fluid flow. More specifically, Brighton describes a labyrinth trim formed from concentric cylinders 16, 19, 20, 21, 31, 32 and 33 wherein each cylinder includes openings 24. *See* col. 4, lines 25-53. One of ordinary skill in the art understands that the concentric cylinders 16, 19, 20 and 21 form a valve plug that intermeshes with a valve trim formed by the remaining concentric cylinders 31, 32 and 33. Each set of cylinders

includes openings 24 to form fluid expansion chambers to control fluid pressure reductions. The applicants submit that the inlet area of expansion chamber is a function of axial displacement of the valve plug, but this is different than providing axial fluid communication between adjacent flow paths to reduce fluid pressure. In Brighton, each radial flow path is isolated from axially adjacent flow paths defined by the respective openings 24 formed with the valve trim. Thus, Brighton does not describe flow paths that provide axial flow, both splitting and mixing flow, as now claimed by the applicants.

Further, with respect to Schnall, Schnall clearly describes and illustrates a fluid flow restrictor formed from closely fitting and welded concentric cylinders 33, 34 and 35 wherein each cylinder includes a plurality of radially drilled holes 36. *See* FIG. 1, FIG. 2 and FIG. 5; *see also* col. 4, lines 23-25. One of ordinary skill in the art understands that the concentric cylinders 33, 34 and 35 form a valve trim exclusively providing radial passageways with no adjacent axial fluid communication from the inlet passage 11 of the flow restrictor to the outlet passage 12. *See id.*; *see also* col. 3, lines 57-60. Again, the applicants submit that the inlet area of expansion chamber is a function of axial displacement of the valve plug 22, but this is different than providing axial fluid communication between adjacent flow paths to reduce fluid pressure. In Schnall, each radial flow path is isolated from adjacent axial flow paths formed with the valve trim. Schnall does not describe the construction of flow paths that provide axial flow, both splitting and mixing flow, as now claimed by the applicants.

In addition, Holter, like Brighton and Schnall, describes a valve trim, wherein each radial fluid flow path is isolated from axially adjacent radial fluid flow paths. *See* Fig. 2. That is, Fig. 2 of Holter clearly illustrates the physical separation of each radial

flow path 8.1, 8.2 from adjacent flow paths. There is no axial fluid communication between adjacent radial flow paths.

Crane describes a fluid pressure reduction device 50 wherein a series of concentric cylinders 60, 70, 80 and 90 form the general structure of the device. *See* FIG. 1. Each cylinder 60, 70, 80 and 90 include a series of radial holes 75 and 85 to form radial fluid passageways within the fluid pressure reduction device 50. *See* FIG. 2 and FIG. 4. Most significantly, the three inner cylinders, best viewed in Fig. 4, illustrate concentric raised rings or separators between each radial hole set. *Id.* The applicants respectfully submit that these raised rings or separators will isolate each series of radial holes to prohibit axial flow therebetween. Thus, there can be no axial fluid communication between axially adjacent radial flow paths.

White also is deficient. White describes a fluid flow restrictor 25 wherein concentric cylinders 27-32 form the flow restrictor. *See* FIG. 1; *see also* p. 2, lines 57-86. Each cylinder 27-32 includes a series of radial openings 33 to form radial fluid passageways within the fluid restrictor. *Id.* As clearly shown in cross section in Fig. 1, the radial flow passageways resulting from the concentric openings 33 are completely isolated. *Id.* There is no axial flow communication between the openings.

Further, Parola fails to describe all of the recitations of the claims. What Parola does describe is a silencer coil 10, 10a constructed from various perforated sheets and coiled into a cylindrical form. Regardless of the base ribbon coil material, Parola teaches a silencer coil wherein area expansions progressively induce fluid pressure reduction in radially expanding flow paths. *See* col. 2, lines 1-5; *see also* FIGS. 2-5, 6 and 8. That is, each embodiment described by Parola expressly provides a splitting and division of the

fluid flow as it progresses from the inner surface of the silencer coil to the outer surface. *Id.* Nowhere within Parola is there an express or inherent teaching of combining fluid flow at the outer surface of the silencer coil.

Finally, Paetzel describes an improvement to a control organ or control valve wherein a skirted valve plug or movable pipes 5.1-5.3 concentrically engage a valve trim or fixed pipes 4.1-4.3 to reduce the sound of fluid flowing through the assembly. *See* col. 2, lines 47-66. As described by Paetzel, each series of pipes 4.1-4.3 and 5.1-5.3 intermeshes with corresponding, intersecting spiral slots 6 to control the fluid flow. *See* col. 3, lines 21-35. Specifically, the slots 6 are disposed at a complementary 45 degree angle to create an increasing number of openings in which fluid may flow. *Id.* The applicants respectfully submit that Paetzel is strikingly similar to Parola because the structures described by Paetzel expressly and inherently provide a splitting and division of the fluid flow as it progresses from the inner surface of the fixed pipes 4.1-4.3 to the outer surface movable pipes 5.1-5.3. Nowhere within Paetzel is there an express or inherent teaching of combining fluid flow at the outer surface of the pipes.

It is well settled and recorded in the MPEP that "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *See Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The applicants submit that newly amended independent claims 1, 17 and 30 are clearly distinguished from the cited prior art and, therefore, these claims and the associated dependent claims are now in allowable form.

CONCLUSION

For the reasons stated above, the applicants submit that the specification and claims are in proper form and clearly define patentable subject matter with respect to the prior art. If there are any additional fees or refunds required, the Commissioner is directed to charge or debit Deposit Account No. 50-2455 of Hanley, Flight & Zimmerman, LLC.

Respectfully submitted,

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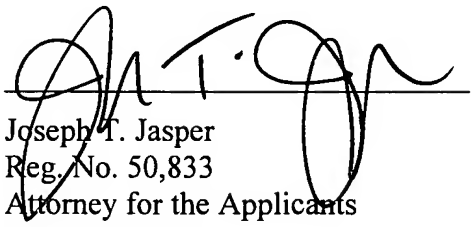

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